



HAMMOND AIR POLLUTION

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CONTROL

CITY OF HAMMOND, INDIANA 46320

3925 CALUMET AVENUE

PHONE 853-8316

May 18, 1979

Mr. John Jagiella
Steel Containers, Inc.
3631 State Line
Hammond, Indiana 46327

Dear Mr. Jagiella:

We regret to inform you that your application for an installation permit for the Drum Incinerator Afterburner has been denied. The reason for the denial is inadequate information. In addition, when applying for an installation permit the only equipment which should be included in the application is the equipment which is installed. The cure oven and paint booths should be included in a separate application for operation permits.

The questions we have concerning the application are listed below:

1. The estimated completion should be month, date and year.
2. Page 2 - The plot plan does not appear accurate on our visual observations, please update and resubmit the plan. In addition, corporate personnel have indicated that Calumet Container property extends the railroad tracks on the west side and beyond the railroad tracks on the east side of your plant. Please clarify these ambiguities on the revised plot plan which you submit with the new application.

3. Page 3 - The application states that 4500 + 400 tons per year of coatings and drum contents are disposed of on-site by incineration. Please explain in detail what these numbers mean. Is sludge incinerated separately of drums? If so submit chemical make up of sludge.
4. Page 3 - The application states that steel drums and miscellaneous contents are disposed of in the incineration process. Please explain in detail the contents of those drums. For example; are lead based paints being burnt? Are chlorinated greases being burnt? In view of the hazardous materials found in the soil on the plant premises a detailed list of drum contents must be submitted. Any material not listed will not be allowed to be incinerated by permit condition. What record keeping will be initiated to monitor drum contents?
5. Page 3 - How is the 100 drum per hour figure going to be verified? A monitoring mechanism must be included and records must be kept on an hourly basis since the application states that the maximum rate through the incinerator is 100 drums per hour. Please indicate this mechanism in the revised drawings.
6. Addendum Part III - The method of calculation of particulate emission is not acceptable. The burning of material in an incinerator is not equivalent to burning oil in an industrial boiler. Please revise these calculations and provide the documentation to back up the calculations when you submit your revised application.
7. Please note that the drums processed per year will be 200,000. The hourly records must be maintained to verify that the drums processed is less than or equal to 200,000. The 200,000 will become the maximum total allowed, normally a company uses maximum design rate X hours of operation per year.

8. Page 6A - Please explain in detail the maximum design capacity of the combustion equipment, the quantity burned per year and the quantity burned per hour. Natural gas supply is currently restricted in our area. Provision should be made for an auxillary fuel should a curtailment occur.
9. Page 6B - The cure oven should be included in a separate application for operation permits.
10. Page 7A - The pollutant controlled under the listing "Air Pollution Control Equipment" should be listed as particulate and not smoke. The control efficiency of 95% must be verified and documented by calculation.
11. Page 7A - The amount of pollutants emitted under the heading lb./hr. appears to be incorrect.
12. Page 7B - This information should be included in a separate application for operation permits.
13. Page 7C - This information should be included in a separate application for operation permits.
14. Page 8 - Please submit a detailed list of all drum contents which will be processed on the plant site. If other materials are included please list them and where the materials came from. A list of your drum suppliers could be included to allow us to check the chemical constituents of all materials contained in the drums that are incinerated. This request is in accordance with Indiana APC-7 Section 3 Parts (c) (e) and (g).
15. Page 9 - This page should be included in a separate application for operation permits.
16. Drum Incinerator Drawings - As per APC-19 Section 2 subpart (a) 4 the drawings and specifications must be approved by an engineer registered to practice in the State of Indiana. Have your P.E. stamp each set of drawings.

17. Drum Incinerator Drawings - The Hammond Air Pollution Control Department will require a temperature monitoring device with a recorder to assure continuous maintenance of 1400°F in the secondary chamber. Please include specifications for the monitoring device and the recorder with your revised submittal, for Agency approval a temperature log must be maintained for each hour of operation and identified by date and time period and kept on file during the period the permit is valid.
18. AP-40 indicates that 90% of all drums contain approximately 4 pounds of residue while the other 10% can have up to 20 pounds of residue. What procedures will Calumet Container adopt to handle this other 10% of the drums?
19. Will there be afterburner controls for regulating gas flow? If so, of what type and when will they be used.
20. What will be the retention time of drums in the main chamber?
21. What spacing intervals will be used for processing drums with over 4 pounds of residue?
22. What will be the space intervals between drums on the conveyor?
23. Will there be any manual or automatic controls for the main burners? If so of what type and when will they be used.
24. Please note that the only emissions which will be allowed from this process will be from the stack designated as S1. Any fugitive emissions emanating from this process will be considered a violation of Hammond Ordinance #3522 (as amended) unless those emissions are inventoried on the installation permit application.

Caluset Containers

Charles Licht 721-7882
 Region
~~Partnership~~
 SBA

4,280 lb flue gas/hr

150 drums in inventory
 nationwide

$$150 \text{ drums/hr} (4 \text{ lb/drum}) = 600 \text{ lb/hr}$$

$$\text{Uncontrolled} = \frac{600 \text{ lb/hr}}{4280 \text{ lb gas/hr}} = 140.2 \text{ lb}/1000 \text{ lb flue gas}$$

$$\text{Particulate (20\%)} = 28.04 \text{ lb}/1000 \text{ lb flue gas}$$

$$\text{Allowable} = 0.3 \text{ lb}/1000 \text{ lb flue gas}$$

$$\text{Efficiency required} = 1 - \frac{0.3}{28.04} = 1 - 0.0107$$

$$= 98.93\%$$

ASME - Waste processing committee - Contribution for
 Fundamental waste
 ASME Incentive
 1974

Table
 Cincinnati IERL
 Solid & Haz. Waste
 R. L. Stenberg 684-7861
 Harry Freeman 684-4363
 Fuel Tech Branch

arsenic
 cadmium
 lead
 PCB
 toluene
 benzene

25. An opacity monitor will be required to show continuous compliance with opacity regulations. Opacity charts must be kept on file and available for inspection during the period covered by the operation permit.
26. Submit a modeling study to prove the source will not prevent or interfere with attainment or maintenance of any national standard as established by the provisions of the Clean Air Act. Reference should be made to current air quality adjacent to the plant and the net increase or decrease that will occur when the source is operated at maximum capacity and during various meteorological conditions.
27. It has been indicated that an additional burner would be purchased and installed in the secondary chamber to meet the particulate standards. However, no additional burners could be located in the plans. The omission of the additional burner leaves serious doubts as to this unit's ability to achieve and maintain compliance with air pollution emission regulations.
28. Based upon field observations of the Drum Incinerator in operation the Agency feels that the combustion of residue from the drum is in no way equivalent to burning oil in an industrial boiler. (Question No. 6) A previous application for an installation permit for the drum incinerator dated September 28, 1977 indicated that the afterburner was designed by assuming all residue entering the incinerator becomes particulate matter to be controlled by the afterburner. This is admittedly overly conservative. Our Agency feels that 20% of the material entering the main chamber as residue on the drums becoming particulate matter is a more realistic figure.
29. Calumet Containers neglected to include the 10% of all drums which contain up to 20 pounds of residue in their calculations, therefore, a more conservative figure for residue entering the main chamber is:

$$\begin{array}{rcl}
 90 \text{ drums} \times 4 \text{ lbs./hour} & = & 360 \\
 10 \text{ drums} \times 20 \text{ lbs./hour} & = & \underline{200} \\
 & & 560 \text{ pounds per hour}
 \end{array}$$

please utilize this figure in future calculations.

30. What is Calumet Container's plans on reducing the amount of sludge being carried by the conveyor into the main chamber? Agency personnel have noted fugitive dust and violations of APC-20 when the conveyor was running through the main chamber burner area without drums on it. This indicates that the conveyor transports sludge back into the incinerator to be burnt. If there are no plans to eliminate this source of combustible material it must also be included in the emission calculations.

Please answer all questions completely and include any supplementary information which will help us in evaluating your application.

Another problem which has surfaced in recent weeks has been Calumet Container's refusal to grant Hammond Air Pollution Control personnel entry for the purposes of verifying construction activity at the plant relative to air pollution control equipment. An inspection will familiarize department personnel with the pollution control equipment associated with the Drum Incinerator and its degree of completion. An inspection is also needed to verify the accuracy of the plot plan. This matter should be cleared up prior to issuance of the installation permit.

If you have any questions concerning this matter please contact the undersigned.

Sincerely,

David L. Herrin
David L. Herrin, Chief Engineer
Hammond Air Pollution Control

DLH/km

cc: U.S.E.P.A.,
State of Indiana

enc: 2 copies of Installation Permit Forms
with associated drawings.

2 copies of blank Installation Permit
application forms.